

A REASON TO SMILE A REASON TO LAUGH



Dental implant reconstruction improved Robin's facial appearance and oral function. It provided her with the impetus to combat her eating disorder.

A multitude of reasons cause teeth to break down, bites to collapse and smiles to fade. Two that often get overlooked and are not frequently discussed are **anorexia** and **bulimia nervosa**.

Very potent digestive enzymes and acids erode the enamel of teeth exposing the softer dentin beneath. As this process continues, decay advances quickly. The teeth start a downward spiral of fractures, then pulpal pathosis, and eventually end in tooth loss and associated bite collapse. These patients quickly become oral invalids.

Robin's teeth were at this stage when we first met this young energetic veterinarian.

One and a half years prior to Robin's initial visit to Pi, she suffered a life threatening automobile accident when the SUV she was driving flipped over several times on a Florida causeway. With the vehicle teetering on the guardrail, Robin could see some of her teeth on the dashboard and some in the passenger seat next to her.

Hospitalization stabilized her emergency condition and several weeks later she returned to



Pre-treatment image shows generalized advanced caries and periodontal disease.



Patients with anorexia and bulimia experience severe erosion of enamel.



Cervical decay leads to tooth loss.



Pre-treatment palatal view of maxilla



Pre-treatment occlusal view of mandible

Philadelphia to recuperate with family and to begin her oral rehabilitation at a local clinic. For more than a year she suffered dental pain as fractured roots were removed, bone grafting was attempted and additional teeth were lost. Mucosal ulcerations were irritated by an acrylic partial denture, which she could not tolerate physically or emotionally. As a result she functioned mostly without teeth and became reclusive. The reconstructive treatment floundered and Robin became increasingly frustrated.

Recognizing the lack of treatment progress and with great concern



Smile after auto accident and subsequent bone grafting

for her combined eating disorder and psychological depression, a family member suggested she seek another opinion for options in dental treatment.

Robin came to Pi and was evaluated clinically and radiographically in April of 2007. The diagnosis was typical of patients afflicted with anorexia and bulimia. Robin's remaining teeth were painful and devastated with enamel loss, cervical decay and bone loss. The malocclusion and lack of teeth traumatized the remaining teeth producing advanced mobility. The majority of the remaining teeth were categorized as hopeless.

Considering all of the clinical conditions and Robin's personal frustration, it was easy to understand tears of anxiety and anger. This led to a treatment plan for our Teeth In a Day[®] protocol. Robin agreed.

The diagnostic workup included comprehensive facial radiographs, diagnostic casts and data gathering sufficient to embark on the preliminary laboratory procedures required for the initial Teeth In A



While patient poses for the photographer, she was frustrated with her teeth and spiraling weight loss.

Day[®] treatment visit. The following morning Robin presented for treatment.

This patient was in need of a full mouth reconstruction, eliminating all diseased entities and rebuilding a functional, esthetic replacement for her natural teeth. Simultaneous to the clinical treatment, Robin required our participation in her counseling through a complex course to address the primary cause of her dental problem, her eating disorder.

The comprehensive treatment plan addressed both the organic and psychological components of Robin's condition.

In April 2007, her remaining maxillary teeth were extracted and significant bone reduction (alveoloplasty) was performed to permit future masking of the prosthesis/soft tissue junction from the smile. Biopsies were performed during this surgery. Following primary closure of the incisions, an immediate full denture with incorporated radiographic markers was delivered. The patient, wearing the immediate denture as a radiographic guide, underwent an I-Cat cone beam CT scan. The DICOM files were then converted to 3-D images using Nobel Biocare's Procera software and a virtual surgical plan was developed for an implant reconstruction of the maxilla.

One week later the lower arch was addressed. Again, remaining teeth were removed, biopsies taken and sent to Temple University Department of Pathology for histologic evaluation. Five Brånemark implants and a fixed screw retained prosthesis were placed using the Teeth In A Day[®] protocol.



Patient smiles following delivery of the provisional Teeth In A Day[®] prosthesis.



Robin's new CM Ceramic smile demonstrates that a psychological transformation occurred.



Robin and Kharma enjoy a sunny afternoon together



Lingual view of maxillary CM Ceramic Prosthesis



Frontal view of maxillary CM Ceramic prosthesis

The following week, the surgical template arrived from Nobel Biocare, permitting the dental technicians to construct an interim screw retained fixed prosthesis for the maxillary arch prior to the surgical placement of the implants. On the day of maxillary implant surgery, following administration of local anesthesia, the surgical template was anchored securely to the maxilla and with minimally invasive flapless surgery the implants were gently placed in the maxillary arch and the teeth installed.



Pre-treatment panoramic radiograph

Healing progressed uneventfully yet slowly. This was attributed to the patient's compromised general health due to her anorexic condition.

Post-treatment photographs demonstrate the restoration of her vertical dimension with the interim prosthesis. Her occlusion was perfected and she was able to eat without pain.

Robin's new smile evidences that a psychological transformation has also occurred. Physically, we allowed her to heal longer than is usually prescribed due to her altered healing capacity.

After twelve weeks of healing, Robin returned to begin the construction of the final set of fixed teeth. Upon removing the provisional maxillary prosthesis, it was noted that one small implant was mobile and not firmly anchored in bone. This implant was removed and two additional small implants were immediately place in the adjacent area.

Final impressions, occlusal records and master casts were constructed and articulated for the technicians to construct the final prosthesis – the CM Ceramics screw retained smile.

After addressing her esthetic concerns, maximizing her occlusion and facilitating her speech patterns by adjusting tooth positions and vertical dimension, the final CM Ceramics prosthesis was delivered.



Post Surgical AP Cephalometric Radiograph



Post Surgical Panorex Radiograph



Post Surgical Lateral Cephalometric Radiograph



Nobel Guide "Map" of Implant Locations

Since initiating treatment at Pi, Robin has made notable strides both dentally and emotionally. She attributes her determination to move on with her life to good dentistry, old-fashioned compassion and a deep sense of caring, three very key ingredients to overcoming eating disorders.



"One of the reasons we are proud of our profession"

Special Appreciation

To CM Ceramics dental laboratory for artistic fabrication of the beautiful teeth.

Call To Action

If you know a patient suffering with an eating disorder, let us collaborate for a cure.



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Robin loves animals, especially her dog Kharma, but her patients benefit from her veterinary training from the University of Pennsylvania.



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Joanne Balshi's new book, Smile Your Heart **Out**, is ideal reception room reading for any restorative practice with a strong focus on cosmetic success. Quick and easy reading, it speaks directly to the heart of the prospective patient about the power of the smile and the impact it has upon building self worth and personal success. It defines the smile in vivid, profound ways that provoke new consideration, and it introduces real people of all ages and cultural diversities who fulfilled their dreams because they prized their smile. A unique tool for showcasing comprehensive quality dentistry, Smile Your Heart Out enhances the profile of a practice by giving it human interest and stirring identification.

Available at www.smileyourheartout.com

